

Activity:	Park Management
Subactivity:	Facility Operations and Maintenance

Subactivity Summary

Program Components	2002 Enacted	2003 Estimate	2004			Change From 2003 (+/-)
			Uncontr/ Related Changes	Program Changes (+/-)	Budget Request	
Facility Operations	186,850	190,763	+961	-530	191,194	+431
Facility Maintenance	294,122	340,665	+13,099	+24,737	378,501	+37,836
Total Requirements	480,972	531,428	+14,060	+24,207	569,695	+38,267

Authorization

16 U.S.C. 1	The National Park Service Organic Act
16 U.S.C. 1a-8	The General Authorities Act
Public Law 98-540	Amendment to the Volunteers in the Park Act of 1969
33 U.S.C. 467-467	National Dam Safety Program Act
42 U.S.C. 6900 <i>et seq.</i>	Resource Conservation and Recovery Act (RCRA)
42 U.S.C. 9600 <i>et seq.</i>	Comprehensive Environmental Response, Compensation and Liability Act (CERCLA)
29 U.S.C. 794, section 504	Rehabilitation Act of 1973, as amended
42 U.S.C. 4151-4157	Architectural Barriers Act of 1968
Public Law 105-391	The National Parks Omnibus Management Act of 1998
47 U.S.C. 901 <i>et seq.</i>	National Telecommunications and Information Administration

Subactivity Overview

National park areas contain significant cultural and natural resources of America's great heritage. The National Park Service (NPS) mission is to preserve and protect these resources. In order to fulfill this mission and ensure that parks are safe and accessible for public use, the NPS conducts a professional program of preventative and rehabilitative maintenance of park resources, facilities, infrastructure and lands. NPS facilities must be maintained at an operational level that ensures continued protection, preservation, serviceability, and use and enjoyment by park visitors. The NPS separates its maintenance activities into two components: Operational Maintenance, which is the performance of all day-to-day tasks related to the use of facilities, and Facility Maintenance which includes those actions that lengthen the life of the asset.

National Park Service personnel maintain a diverse range of recreational, public use, historic and support facilities located throughout the nation under vastly different circumstances. Park areas range from small historic sites to large battlefields; from shorelines and lakes to immense natural areas; and from prehistoric ruins to awe-inspiring geologic features. Some units are located within urban settings while many others are found in extremely remote locations. All come with a myriad of facilities and features, many common to the Park Service, with others unique to specific sites, but all of which must be properly maintained to achieve intended objectives and to protect the Government investment in these facilities.

At a Glance...**Facility Management Workforce**

- **Building operations:** Laborers, maintenance workers, architects, engineers, electricians, carpenters, painters, plumbers, and other skilled trade and craft specialists.
- **Roads:** heavy equipment operators, motor vehicle operators, and laborers.
- **Trails and grounds maintenance:** gardeners, landscape architects, horticulturists, laborers, maintenance workers, and equipment operators
- **Fleet management:** maintenance workers and mechanics
- **Utility systems:** electricians, plumbers, plant operators, and other skilled trade specialists
- **Dock and water facilities:** scuba diving, underwater blasting, and ship handling

NPS has adopted an industry standard metric to gauge maintenance program success, based upon the findings provided by a Servicewide Facility Inventory and Condition Assessments that are currently in progress. The improvement or sustainment of the facility condition index (FCI), which is an indication of the condition of National Park Service assets, will be a measure of the performance of the Facility Operations and Maintenance program, linking programmatic activities to defined results and outcomes. The National Park Service has developed a strategy that includes the establishment of a Servicewide facility inventory and comprehensive condition assessment program.

Draft DOI Outcome Goals Applicable to this Subactivity

Resource Protection**1.1 Improve Health of Watersheds, Landscapes, and Marine Resources**

The Facility Maintenance program component supports this goal by restoring and maintaining proper function to watersheds and landscapes, including repairing flood damage.

1.2 Sustain Biological Communities

The Facility Maintenance program component supports this goal by creating habitat conditions for biological communities to flourish, including control of invasive species and monitoring groundwater.

1.3 Protect Cultural and Natural Heritage Resources

The Facility Maintenance program component supports this goal by reducing degradation and protecting park cultural and natural heritage resources. For example, the Cyclic Maintenance for Historic Properties Program involves the renovation, restoration, preservation and stabilization of prehistoric and historic sites, structures and objects.

Recreation**3.1 Improve Access to Appropriate Recreation Opportunities on DOI Managed or Partnered Lands and Waters**

This subactivity supports this goal by improving, maintaining and managing capacities to provide access for recreation, such as performing trail repair, road maintenance and building boat docks.

3.2 Ensure a Quality Experience and Enjoyment of Natural and Cultural Resources on DOI Managed or Partnered Lands and Waters

Programs and activities in this subactivity support this goal by enhancing the quality of recreation opportunities, including cleaning and otherwise maintaining restrooms, recreational facilities and grounds.

Serving Communities**4.1 Protect Lives, Resources and Property**

Programs and activities in this subactivity support this goal by improving public safety and security and protecting public resources from damage, including maintaining alarm systems and mitigating tripping and other safety hazards.

Subactivity: Facility Operations and Maintenance
Program Component: Facility Operations

FY 2004 Base Program Overview

Facility Operations is defined as those activities relating to the normal performance of the functions for which the facility or equipment is used. Typically, these are day-to-day activities that allow for continued use of facilities such as buildings, roads, trails, picnic areas and campgrounds. These activities, while important, are not part of the maintenance regimen that directly extends the life of a facility. The following listing identifies common facilities and work completed in the national parks on a daily basis. As mentioned earlier, the magnitude of this work ranges from nominal to very significant depending on the nature of the park, its facilities, location and use.

Building Operation includes:

- activating and deactivating seasonal buildings
- routine cleaning and custodial work in campground facilities, visitor centers, and other public use and administrative facilities
- solid waste collection and disposal
- rodent control
- cleaning
- and costs associated with cooling, heating, lighting and telephones

Roads Operation includes:

- trash collection
- roadside litter pick up and mowing
- road snow and ice control, installation of snow poles, opening roads in the spring
- rock fall/slide removal, road sweeping

Trails and Walkways Operation includes:

- opening and closing of trails in the spring and fall seasons
- hazardous tree removal
- stock and packing operations.

Note: Physical labor is often intensive and can be extreme due to elevation and exposed conditions, length and difficulty of the trail, stabilization requirements, wilderness-designation construction limits and erosion control needs.

Grounds Operation includes:

- litter collection and trash removal
- lawn irrigation, mowing, edging and trimming, leaf collection and removal,
- pest management
- cleaning statuary and monuments
- opening, operating and closing campgrounds

Fleet Management Operation includes:

- interior and exterior cleaning of vehicles and equipment,
- preparing new vehicles for service and the installation and removal of attachments
- fueling

Note: Some parks have automotive repair shops that provide the full range of service on heavy equipment, tractors and mowing equipment, boats and passenger vehicles critical to park needs in maintenance, resource protection, and visitor services.

Utility Operation includes:

Utility operations/systems typical of most units of the National Parks include: water, wastewater, electricity, communications systems encompassing telephones, radios and computer networks; in-house and/or contracted solid waste collection operations.

- operating and testing water and wastewater systems
- operating heating, ventilation and air conditioning equipment
- costs associated with utilities produced by public companies
- operating elevator and transport systems
- installing and repairing communications systems
- inspecting and adjusting utility system components to maintain full service to park facilities.

Dock and Water Facilities Operation includes:

- servicing of marine toilet facilities

- operating marine fuel stations
- operating transport craft
- water transport of waste material

Park Facility Management

Park Facility Management is included in Facility Operations and is defined as planning, organizing, directing, and controlling work activities that are the fundamental principles of an effective maintenance management program. This includes day-to-day management of facilities, including setting schedules; assigning tasks; allocating resources, including personnel, equipment, and materials; and inspecting work completed. Park Facility Management also includes long range development and protection of facilities.

Workload tables and performance summary tables are found after the justification of program changes at the end of this subactivity.

FY 2002 Program Performance Accomplishments

- The National Park Service administers the Facility Operation Program to direct the proper utilization of park facilities, resources and assets. On a day-to-day basis, the NPS operates thousands of facilities involving tens of thousands of assets and resources. Responsibility for the program rests with the 388 park units with funding coming from park base budgets. Because these activities represent a significant portion of park operating costs, the Service continues to review and improve the manner in which information about this work is captured and quantified.
- An existing accomplishment measurement tool, albeit focused only on visitor facilities, is the results of the annual visitor satisfaction surveys. These surveys capture visitor satisfaction levels for a number of NPS facilities including visitor centers, restrooms, campgrounds and picnic areas, and roads and trails. In 2002, the servicewide satisfaction rating for park visitor centers was 93% and for restrooms was 83%.
- The National Park Service has initiated a program of facility condition assessments that, upon achieving operational levels in FY 2003, will enable the NPS to better articulate and quantify the levels of accomplishment in Facility Operations Program. This program is described in further detail later in this section.



Gettysburg NMP

At A Glance...

Facility Operations at Redwood National Park

- Redwood National and State Parks was created in 1968 to preserve coastal redwood forest.
- Today, the park encompasses 112,000 acres (78,000 federal), and receives approximately 400,000 visitors annually. In 2002, 83% of park visitors rated park facilities either good or very good.
- In FY 2002, 69% of the park's \$1.952 million Facility Management Program (or 19% of park base funding of \$7.073 million) was spent on Facility Operations.
- A recent inventory of park assets, completed as part of the condition assessment program, generated a list of 305 assets that involve facility operations, and for which annual condition assessments will be completed.
- Facilities and their day-to-day requirements include:

Facility Categories	Work description
Buildings	
5 information centers	
26 operational / administrative facilities including:	Routine cleaning and custodial work, trash collection and disposal, opening and closing seasonal buildings, rodent control, routine servicing of utility systems and costs associated with utility systems
• Headquarters	
• Central maintenance	
• 4 office buildings	
• 2 fire caches and 1 fire lookout	
• 17 employee housing units	
Roads and Trails	
• 98 miles of hiking and equestrian trails with 120 bridges and 300 signs	Trash collection and litter pickup, downed and hazard tree removal, and rock and debris removal
• 75 miles of paved and gravel roads	
Utilities	
• 10 water and waste water distribution and collection systems	Operating, inspecting and adjusting utility systems for proper function
• electrical and communication systems	
• 3 full-service restrooms	Cleaning and servicing, trash collection and removal
• 7 composting toilets and 9 vault toilets	
Grounds and Campgrounds	
• 4 primitive campgrounds	Litter collection and trash removal and hazard tree removal



Redwoods NP

FY 2003 Program Performance

- The FY 2003 program will continue funding the day-to-day work necessary for the proper utilization of facilities and assets throughout the service.
- Continue work necessary to establish baseline condition information on identified NPS assets and facilities.

FY 2004 Budget Request: Facility Operations

Request Component	Amount
FY 2003 Budget Estimate	190,763
Programmatic Changes	
Information Technology Reduction	-530
TOTAL, Program Changes¹	-530
Uncontrollable changes	+961
FY 2004 Budget Request	191,194
Net change	+431

¹Justification for program changes can be found at the end of this subactivity's presentation.

Subactivity: Facility Operations and Maintenance
Program Component: Facility Maintenance

FY 2004 Base Program Overview

Facility Maintenance is the upkeep of facilities, structures, and equipment necessary to realize the originally anticipated useful life of a fixed asset. Maintenance includes preventive maintenance; normal repairs; replacement of parts and structural components; periodic inspection, adjustment, lubrication and cleaning (non-janitorial) of equipment; painting; resurfacing; and other actions to ensure continuing service and to prevent breakdown. Maintenance excludes activities aimed at expanding the capacity of an asset or otherwise upgrading it to serve needs different from, or significantly greater than, those originally intended – such work is completed as part of the construction program. The lack of maintenance can reduce an asset's value by leading to equipment breakdown, premature failure, and shortening useful life. Program elements and functions that comprise this funding component are discussed below.

A number of programs, managed at the Servicewide or Regional Office level, fall under the Facility Maintenance component and are listed below under the heading of 'Facility Programs Administered from Central Offices.' These are managed centrally in order to establish policy, and provide oversight and coordination.

Building Maintenance includes:

- | | |
|--|--|
| <ul style="list-style-type: none"> • painting • plumbing • roofing • minor building and structural repairs • foundation work • general buildings maintenance | <ul style="list-style-type: none"> • floor refinishing • hazardous materials removal and storage for disposal • equipment, appliance, and furnishings repair or replacement • masonry work |
|--|--|

Road Maintenance includes:

- | | |
|--|---|
| <ul style="list-style-type: none"> • clearing vegetation from roadsides • cleaning ditches and culverts • grading roads • asphalt overlays, patching potholes, filling cracks and striping | <ul style="list-style-type: none"> • sign repair and replacement • painting bridges • grading and hauling and stockpiling material |
|--|---|

Note: Much of the equipment operated is specialized, requiring highly skilled employees, attention to safety, and a dependency on seasonal employees.

Trail and Walkway Maintenance includes:

- Drainage and tread repair
- Replacing and repairing signs and foot bridges
- Repairing and constructing boardwalks
- Repairing and constructing rock and log retaining walls
- Installing interpretive signage
- Removal of vegetation along trailsides

Grounds Maintenance includes:

- Servicing and repairing irrigation systems
- Painting, repairing outdoor fixtures and furnishings such as benches and tables
- Repairing walls and fences
- Repairing and replacing light fixtures, trash cans, campground equipment,
- Repairing and replacing boundary markers
- Tree health maintenance
- Stabilize / repair statuary and grave markers

Fleet Management includes

- Routine oil changes and tune-ups
- Engine overhauls
- Tire repair
- Machinist work
- Body work, welding, painting, fabrication of parts
- Maintaining a parts operation

Utilities includes:

- Repair and replacement on water and wastewater equipment such as pumps, motors, grinders, valves, piping systems
- Repairing electrical distribution lines and devices
- Repairing and replacing heating, ventilation, and air-conditioning units
- Repair and replacement of special utility subsystems such as garbage dumpsters, solid waste transfer station components, electrical distribution system substations and equipment, and some radio system components

Note: Often, because of remoteness and/or unique geographical or physical circumstances, some of the most unique and challenging utility systems in the world are found at the national parks; examples include the water system at Grand Canyon National Park and the cave sewer pumping system at Carlsbad Caverns National Park.

Dock and Water Facilities includes:

- Repairing and replacing docks and ramps
- Painting dock facilities
- Repairing boats and marine equipment
- Maintaining fish cleaning facilities
- Repairing and maintaining navigational aids and buoys

At A Glance...**Facility Maintenance Program Funding**

Environmental Management Program	\$ 11,376
Dam Safety Program	\$ 395
Emergencies/Storm Damage	\$ 2,978
Wireless Technology Program	\$ 305
YCC Programs	\$ 2,000
Cyclic Maintenance	\$ 46,887
Cyclic Maintenance for Historic Properties	\$ 10,415
Repair/Rehabilitation	\$ 90,280
Projects	[\$ 73,859]
Condition Assessments	[\$ 11,294]
FMSS	[\$ 5,127]

**Amounts are FY 2003 President's Budget*

Park Facility Management – Facility operations management includes day-to-day management of facilities, including setting schedules; assigning tasks; allocating resources, including personnel, equipment, and materials; and inspecting work completed. Included in this function is overall division management, work planning and programming, identification of health and safety issues, and long range planning. Park support staff must deal with planning, comprehensive design, contract document preparation, estimating project proposal presentations, surveying, drafting, updating building files, contract administration, maintaining drawing files and a technical library. When appropriate, park staff and management are provided with technical guidance on park development, rehabilitation, and construction projects.

Facilities management includes long-range development and protection of facilities and natural/cultural resources. Tasks include multi-year facilities management plans; budget formulation and development;

planning, design and construction activities involving existing or new facilities; projections of future facility needs; and management of inventory and condition assessment programs for facilities.

Facility Maintenance Programs Administered from Central Offices

1. Environmental Management Program (EMP) – The mission of the Environmental Management Program (EMP) is to improve the environmental performance of the National Park Service (NPS) regarding its mission related activities. To achieve this purpose, the EMP provides technical and management solutions to existing and anticipated environmental issues. By providing guidance to the park units, the EMP will seek sustainable results that meet or exceed legal requirements, prevent pollution, minimize environmental impacts, and provide educational value to the NPS and the public.

Under the Resource Conservation and Recovery Act (RCRA), the NPS is required to provide “cradle-to-grave” management of hazardous wastes generated by parks, to minimize waste generation, and to properly manage and close solid waste landfills located on NPS lands. The Act also requires the NPS to properly maintain all fuel storage tanks and to cleanup any fuel releases.

The Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) requires the NPS to investigate and clean up all sites contaminated by hazardous substances. The act also provides the NPS with the authority to require parties responsible for contamination of NPS lands to bear the burden in cleaning up these sites. In order to minimize liability under CERCLA, the NPS utilizes a Land Pre-Acquisition Environmental Site Assessment Program to evaluate properties for hazardous substance contamination prior to their acquisition.

At A Glance...

EMP

- Develops and maintains a Service-wide environmental management system
- Provides legal/regulatory analysis of solid and hazardous waste management issues.
- Develops pollution prevention, “greening”, and sustainable practices programs
- Provides solid and hazardous waste technical guidance
- Reduces liability associated with management of hazardous material/wastes
- Performs cleanup of fuel storage tanks and contaminated sites
- Develops and implementation of training, policy, and guidance
- Completes periodic and objective reviews of NPS facilities under the NPS Environmental Audit Program

Regularly performed maintenance activities under direction from Environmental Management Program include:

Hazardous Waste Management	Fuels Management	Landfills Management
<ul style="list-style-type: none"> • Analysis of Hazardous Waste • Waste Storage • Waste Handling • Waste Transportation • Waste Disposal • Employee Operation and Safety Training 	<ul style="list-style-type: none"> • Fuel Inventory Reconciliation • Fuel Tank Leak Detection Monitoring • Fuel Tank Corrosion Protection Monitoring • Fuel Tank Testing • Employee Operations And Safety Training 	<ul style="list-style-type: none"> • Waste Sorting For Recycling • Groundwater Monitoring At Landfills • Employee Operations And Safety Training

2. Dam Safety Program – The National Park Service is required to comply with Public Law 104-303, The National Dam Safety Program Act that mandates the inventory, inspection, and corrective action of dams located within or adjacent to National Park System units. The programmatic goals of the National Park Service Dam Safety Program are:

- to ensure that all dam structures are inventoried
- to inspect National Park Service dams to determine whether they meet maintenance, operational, and safety requirements

- to ensure corrective action is promptly taken to protect life, property, natural resources, or project purposes

The performance of this program is validated based upon available information compiled in a computerized inventory of dams affecting the National Park System. For FY 2004, a greater emphasis will be placed upon utilizing all funding sources that are available for the deactivation of deficient or non-essential dams affecting the National Park System. The National Park Service is recognized as a leader in dam removals for the purpose of safety and environmental restoration.

3. Emergencies, Storms/Floods and Structural Fires – During the course of a typical operating year, a number of parks sustain damage to resources due to natural causes, such as severe storms, floods, fires, hurricanes and earthquakes. Funds budgeted under this item are used to cover such contingencies so that park operating funds do not have to be diverted from ongoing and essential park programs.

4. Wireless Technology Program – The Wireless Technology Program provides Servicewide guidance for the field in the planning, acquisition and use of two-way radio and related wireless technologies for park public safety and administrative support, including support to national programs requiring interoperability of communications for commissioned personnel, for search and rescue, control of HAZMAT spills, fire management operations, and maintenance functions.

To comply with regulations embodied in CFR 47, Section 151, the Departmental Manual, Part 377, and National Telecommunications and Information Administration (NTIA) and Federal Communications Commission (FCC) regulations, the center is required to update and justify each of the National Park Service radio frequency authorizations whenever new frequencies are required and whenever any authorization has been in effect for over five years. Authorizations are for specific frequencies at specific geographic locations (specifically by latitude, longitude and site elevation), issued under rigidly controlled conditions of operation and use. Radio Frequency Interference (RFI) is reported to the office and adjudicated as to cause and effect and the center arbitrates disputes or refers to higher authority.

There are over 5,000 radio frequency assignments on over 300 radio systems, most of them critical to public safety in the park jurisdictions and for park resource management, including fire suppression and search and rescue missions, in addition to park administration. Daily management of the frequency resources and provision of operation and maintenance type consulting services invokes the services of technical personnel in both the National Park Service and the Department of the Interior radio community.

Technical services to oversee the complete replacement of the entire National Park Service radio equipment inventory is required to change to the narrowband digital radio technology required by the CIO of the Department in IRM BULLETIN 2000-005. A Servicewide inventory of all radio equipment as to type, remoteness of facilities and operational needs, and an assessment of park staffing that requires the radios was first conducted in 1998 and again in 2002 to determine field requirements and to forecast replacement costs. That survey continues to be utilized to reflect current fiscal and inventory requirements.

5. Youth Conservation Corps (YCC) Program – The Youth Conservation Corps Act established the YCC program in 1971. Since then, this program has provided summer employment for

At A Glance...

Narrowband Conversion

- Total radio replacement costs are estimated at \$121 million for parks and \$22 million for United States Park Police digital narrowband technology.
- Required completion date for Servicewide conversion is September 30, 2006, for most of the wireless communications networks of the NPS.

At a Glance

Typical YCC Projects

- trail maintenance and construction
- tree management
- pest and exotic weed control
- erosion control projects, drainage ditch and culvert maintenance
- campsite construction and maintenance
- fencing construction and maintenance
- restoration of historical areas and monuments
- landscaping, beautification and planting

youth of ages 15 – 18 from all social, economic, ethnic, and racial backgrounds to further the development and conservation of the natural resources of the United States.

Projects are carried out through existing youth-serving organizations such as the National Association of Service and Conservation Corps or the Student Conservation Association. The YCC program is managed at the Regional level with Washington Office oversight.

Through the YCC and other similar programs, these young adults maintain federal parks and other public lands and accomplish conservation projects. In return, they are introduced to the conservation mission of the Interior Department and receive meaningful work experiences and mentoring from conservation professionals.

6. Cyclic Maintenance – The cyclic program is a key component to meet the Administration's goal of reducing the deferred maintenance backlog. The Cyclic Maintenance Program incorporates a number of regularly scheduled preventive maintenance procedures and preservation techniques into a comprehensive program that prolongs the life of a particular resource, utility, or facility. Typical projects include road sealing, painting and roofing of buildings, clearing vegetation from trails, sign repair and replacement, landscaping, repair of dock and marine facilities, and upgrades of electrical and security systems.

The Cyclic Maintenance for Historic Properties Program (also referred to as Cultural Cyclic) involves the renovation, restoration, preservation and stabilization of prehistoric and historic sites, structures, and objects. It provides the means to accomplish park maintenance activities that occur on a fixed, predictable, periodic cycle longer than once in two years, for all tangible cultural resources. Examples of projects include re-pointing masonry walls of historic and prehistoric structures, pruning historic plant material, stabilizing eroding archeological sites, and preventive conservation of museum objects.

At A Glance...

Cyclic Maintenance

- Cyclic maintenance funding is most optimally applied to facilities in "fair" condition.
- In FY 2004 the Cultural Cyclic program is being transferred from Cultural Resources Management to Facility Maintenance to more fully reflect its association to the deferred maintenance backlog.
- Cyclic projects in this program are performed as often as every two years or as infrequently as every ten years.
- Prolongs the life of the facility, utility or particular resource.
- Programs are coordinated at the Regional Level.
- According to the Project Management Information System, the Cyclic program funds approximately 400 park projects each year.

7. Repair and Rehabilitation Program – The Repair and Rehabilitation Program is an important part of the Administration's goal to eliminate the deferred maintenance backlog in parks, and consist of projects, the Condition Assessment Program (now referred to as the Asset Management Program) and the Facility Management Software System.

At A Glance...

Repair/Rehabilitation

- Repair/Rehabilitation funding is generally applied to facilities in "poor" condition.
- Projects occur infrequently or on a non-recurring basis.
- Restores or extends the life of the facility or component.
- Coordinated at the Regional Level.
- Since FY 2002, availability to obligate funds has been extended from 1-year to 2-years from the year of appropriation.

Repair and Rehabilitation Projects – The projects are large-scale repair needs that occur on an infrequent or non-recurring basis. They are projects that are designed to restore or extend the life of a facility or a component. Typical projects may include campground and trail rehabilitation, roadway overlay and/or reconditioning, bridge repair, wastewater and water line replacement, and the rewiring of buildings. These projects are usually the result of having deferred regularly scheduled maintenance to the point where scheduled maintenance is no longer sufficient to improve the condition of the facility or infrastructure. Deficiencies may or may not have immediate observable physical consequences, but when allowed to accumulate uncorrected, the deficiencies inevitably lead to deterioration of performance, loss of asset value, or both.

The Repair and Rehabilitation Program is coordinated by Regional

Offices, where projects are evaluated and prioritized from needs lists developed by the individual parks. Projects planned for completion address critical health and safety issues.

Five-Year Deferred Maintenance and Capital Improvement Plan

As part of the Maintaining America's Heritage initiative, the NPS has developed a 5-Year Deferred Maintenance/Construction Plan. Each plan provides the projects of greatest need in priority order with focus first on critical health and safety and critical resource protection. The Service has undertaken an intense effort originating in the field to develop these lists.

For FY 2004 construction projects, complete project descriptions in priority order are provided in the Justifications. The FY 2005- FY 2008 construction projects are to be provided in a separate volume. The FY 2004 deferred maintenance project descriptions and lists showing all Repair and Rehabilitation projects between FY 2004-FY 2008 are provided in a companion volume.

Limited modifications to the lists will occur as they are annually reviewed and updated, with the addition of a new fifth year, and submission to the Congress.

The five-year plan has several important objectives:

- to better understand and help reduce the Interior Department's accumulated deferred maintenance needs
- to comply with the Federal Accounting Standards Advisory Board (FASAB) document Number 6 on deferred maintenance reporting
- to aid departmental planning for future capital improvements

Repair and rehabilitation projects which comprise a portion of the deferred maintenance backlog are funded under this budget function. Other deferred maintenance needs are handled through line item construction projects and road projects are funded through the Transportation Equity Act for the 21st Century.

Asset Management Program (formerly referred to as the Condition Assessment Program) – A key component to more effective management of facilities is a comprehensive inventory, needs assessment, and facility condition assessment survey process, which provides the necessary Servicewide information for determining what resources and activities are necessary to maintain facilities and infrastructure in good operating condition. The National Park Service has implemented a management reform process to provide comprehensive asset inventory and condition information that is creditable and accountable.

At A Glance...

Asset Management Program

- The program is establishing indices for measuring asset priority (API) as well as facility condition (FCI). The FCI will be used as a measure for monitoring program success in improving or maintaining facility condition.
- A baseline FCI will be established for all industry standard assets by the conclusion of FY 2003.

This funding will be used to continue to conduct comprehensive condition assessments in parks that use the Facility Maintenance Software System (FMSS). The information collected will be loaded into FMSS to be easily accessible and more useful in daily decision-making. The comprehensive inventory and condition assessment data collected will also be used to fulfill reporting requirements as mandated by Departmental guidance and the Federal Accounting Standards Advisory Board (FASAB) Number 6.

Because a comprehensive evaluation of all NPS assets will take some time to complete for the first five-year cycle of condition assessments, the information gathered from less comprehensive annual condition assessment surveys at all NPS units will be loaded into FMSS to provide a more timely baseline upon which remediation progress can be measured. The facility condition assessment survey will use objective criteria, such as industry standards (where applicable) and FASAB accounting requirements. These annual assessments will continue to be conducted after comprehensive condition assessments are completed to enable the National Park Service to continually monitor the health of its assets.

The information gathered by both the comprehensive and annual assessments is critical to monitoring the effectiveness of reducing the maintenance backlog. This comprehensive process for monitoring the health of the NPS assets will provide a means of early detection of potential problems in line with preventing further facility deterioration and possible failure of facilities. It will also allow for accurate performance measures to be developed to monitor the reduction of the maintenance backlog. The NPS will use an industry standard, the Facility Condition Index (FCI), which quantifies the condition of a structure by dividing the deferred maintenance backlog of a facility by the current replacement value of the same facility.

This process will assist the Service in determining which facilities are necessary for the mission and which could be excessed from the NPS inventory. This process acknowledges that, given limited fiscal resources, not every asset in the National Park Service will receive the same level of attention, but will allow the NPS to prioritize which assets receive immediate and long term care.

Further, the Service will monitor the percentages of facilities improved from poor condition to good condition as the principal performance measures and indicators in determining the efficacy of National Park Service regional maintenance programs. The NPS is currently creating an estimated baseline FCI for park service facilities, based on a statistically valid sample of structures that have condition data. In 2003, NPS will be able to use this management tool to help managers prioritize projects and evaluate whether demolition, replacement or rehabilitation is the most cost-effective method.

At A Glance...

FMSS

- The FMSS will be fully deployed at the conclusion of FY2003.
- Data from capital asset plans contained in the FMSS will be used for formulation of all facility operations and maintenance budget requests through an interface with the Project Management Information System and the Operations Formulation System by the conclusion of FY 2006

NPS Facility Inventory and Conditions Assessments Timeline, Number of Park Units

Activity	FY 2001 and prior	FY 2002	FY 2003	FY 2004 and outyears
Implement FMSS in parks (software installation and staff training)	123	94	133	Provide updates to FMSS program.
Accomplished to date	123	217	350	
Annual Facility Condition Assessments completed	6	89	251	Complete assessments at 4 remaining parks and continue assessments at all parks
Accomplished to date	6	95	346	

During formulation of the FY 2004 budget, the administration began using the Program Assessment Rating Tool (PART) to identify strengths and weaknesses of programs and to inform budget, management and policy recommendations. The process generated extensive information on program effectiveness and accountability including the need for additional performance measures including:

- complete the assessment of current facility conditions
- implement a facility maintenance software system
- increase use of efficiency measures, benchmarks, performance-based contracts, and capital asset plans
- continue ongoing efforts to reduce unobligated balances, improve financial management and streamline environmental compliance reviews

Facility Management Software System – The NPS has begun several processes of management reform to provide a structured management system that is creditable and accountable. The Facility Management Software System (FMSS) is a commercial product that is an asset maintenance software program designed to help organizations closely control and track maintenance expenses, develop maintenance backlog priority lists, improve safety, and more effectively deploy productive assets, personnel and other resources.

By the end of FY 2003, all Parks will have access to FMSS. Deployment involves purchase of site licenses and software, installation, and user training. FMSS will serve as the primary source of data by which facility management budget requests are based. Throughout the implementation process, the system will be used to collect facility operations and maintenance data on assets necessary to the mission so that the most critical needs may be identified.

Funding will be used to provide continued Servicewide implementation with software/hardware upgrades, continued training to reach more users with introductory education. This also includes basic system administration, database management, ongoing interface work with other legacy software programs such as the Operations Formulation System and the Federal Lands Highway Program database. The funding will also be utilized for initiating implementation of preventive maintenance, cyclic maintenance, and component renewal software. This is a phased program of implementation of third party software and supporting hardware will allow the Service to develop a credible program of life cycle maintenance for new facilities as well as facilities that have been restored to good condition.

Funding History – Cyclic Maintenance and Repair/Rehabilitation Programs				
Program	FY 2001 Enacted ¹	FY 2002 Enacted	FY 2003 Estimate	FY 2004 Request
Cyclic Maintenance	24,119	21,887	46,877	55,887
Cyclic Maintenance for Historic Properties	10,415	10,415	10,415	10,415
Repair and Rehabilitation Program	55,459	72,640	90,280	98,480
Projects	[55,459]	[65,459]	[73,859]	[80,174]
Condition Assessments	[998]	[3,654]	[11,294]	[13,900]
FMSS	[1,996]	[3,527]	[5,127]	[4,406]
¹ In FY 2001 under Title VIII funding, \$4.989 million in additional funding was provided for cyclic maintenance (for total of \$29.108 million), \$2.993 million for Cyclic Maintenance for Historical Properties (for a total of \$13.408 million), and \$11.974 million for repair/rehabilitation (for a total of \$67.433 million). Note: Condition assessments and FMSS are shown for comparison purposes only in FY01; items were not funded in Repair/Rehab in FY 2001.				

Workload tables and performance summary tables are found after the justification of program changes at the end of this subactivity.

FY 2002 Facility Maintenance Program Performance Accomplishments

Cyclic Projects – According to the Project Management Information System, roughly 400 projects are funded and completed each year through the cyclic maintenance programs. Examples of projects completed in FY 2002 include:

- Maintenance of primary roads from the Alpine Visitor Center to Timber Lake Trail at Rocky Mountain National Park
- Replace 100 aluminum steps and bridge Sections along the Scenic Cave Tour Route at Jewel Cave National Monument
- Perform cyclic dock maintenance at Apostle Islands National Lakeshore
- Paint visitor use facilities parkwide interior / exterior at New River Gorge National River
- Paint exterior of four education campus buildings, Floyd Bennett Field at Gateway National Recreation Area
- Replacement of dock anchor cables, safety treatments, and resource protectants at Bighorn National Recreation Area

Repair / Rehabilitation Projects

- Fort Scott NHS: Elimination of unsafe electrical wiring
- Saguaro NP: Rehabilitation of the water system at Manning Camp

Environmental Management Program

- Cuyahoga Valley NP, Krejci Dump: FY 2002 saw settlement with the polluting responsible parties that will result in a \$20.5 million cash award and \$29.0 million in cash savings

Emergency Storm Floods

- Northeast Region parks - repair flood damage to several roads and trails, repair/rehab curatorial facilities (\$644,100)
- Gulf Islands - repair Ship Island Pier damaged by a large watercraft (\$49,000)
- San Francisco Maritime - repair damage to the historic wooden schooner C.A. Thayer (\$24,100)
- Buffalo NR - reopen Buffalo Point Campground, cleanup/repair roads (\$33,000)
- Ozark NSR - repair park facilities damage by a violent storm (\$560,000)

Wireless Technology

- Northeast Region parks - repair flood damage to several roads and trails, repair/rehab curatorial facilities (\$644,100)

Servicewide Facility Management

- Update of the Five-Year Deferred Maintenance and Capital Improvement Plan

FY 2003 Facility Maintenance Program Performance

Examples of projects to be completed in FY 2003 include:

Cyclic Projects – more than 400 projects including

- Gateway NRA, Sandy Hook Unit: Reroof historic Fort Hancock museum store house
- Gettysburg NMP: maintain historic lane ditches

Repair / Rehabilitation Projects - more than 425 projects including

- Golden Gate National Recreation Area : Rehab Inadequate Electrical System at Fort Mason
- Harpers Ferry National Historical Park: Stabilize Episcopal Church Ruins
- Channel Islands National Park: Rehabilitate Historic Vail-Vickers Ranch House
- Weir Farm National Historic Site: Preserve Stone Walls and Barway Gates
- Big Hole National Battlefield: Rehabilitate Siege Area Trail Bridge
- San Juan National Historical Park: Rehab La Princesa Bastion Unsafe, Deteriorating Steps/Floor

Emergency Storm Floods

- The FY 2003 program will address emergency situations

Servicewide Facility Management

- Update of the Five-Year Deferred Maintenance and Capital Improvement Plan

FY 2004 Budget Request: Facility Maintenance

Request Component	Amount
FY 2003 Budget Estimate	340,665
Programmatic Changes	
Park Base – Operations	+7,775
Repair and Rehabilitation Projects	+6,315
Condition Assessments	+2,606
Facility Management Software System	-721
Cyclic Maintenance	+9,000
Information Technology Reduction	-238
TOTAL, Program Changes¹	+24,737
Transfer from Cultural Cyclic for Historic Properties Program ²	+10,415
Other Uncontrollable changes	+2,684
TOTAL, Uncontrollable Changes	+13,099
FY 2004 Budget Request	378,501
Net change	+37,836

¹Justification for program changes can be found at the end of this subactivity's presentation.

²Uncontrollable changes include the \$10.415 million transfer of Cyclic Maintenance for Historic Properties to the Facility Operations and Maintenance subactivity to more fully reflect its association to the deferred maintenance backlog.

Summary Justification of FY 2004 Budget Request for Facility Operations and Maintenance

Request Component	Amount
FY 2003 Budget Estimate	531,428
Programmatic Changes	
Park Base Operations	+7,775
Repair and Rehabilitation Projects	+6,315
Condition Assessments	+2,606
Facility Maintenance Software System	-721
Cyclic Maintenance	+9,000
Information Technology Reduction	-768
TOTAL, Program Changes	24,207
Uncontrollable changes	+3,645
Transfer – Cultural Cyclic for Historic Properties Program	+10,415
TOTAL, Uncontrollable Changes	+14,060
FY 2004 Budget Request	569,695
Net change	+38,267

Park Base – Operations: +\$7.775 million

The NPS is proposing an increase of \$14.175 million at parks in FY 2004 to address a number of specific, high priority maintenance and operating requirements. As part of the annual budget review process, park managers have identified and prioritized a wide range of unfunded operational needs using the Service's Operations Formulation System (OFS). The web-based, interactive OFS system, which also captures the incremental impact of the identified increase on performance, has resulted in improvements in the budget formulation process, including greater consistency, enhanced linkage of budget to performance, and efficiencies related to the use of technology. This FY 2004 budget proposal addresses the most pressing of the Service's park operational and facility maintenance concerns.

The \$14.175 million in funding would allow for critical requirements such as increased protection of resources, enhanced law enforcement, more efficient maintenance operations, initial operation of new facilities and park units, and funding for special events such as the celebration of the centennial of flight. The specific increases contained in this proposal cut across functional categories as described by the NPS budget structure.

While it is difficult to quantify the impact of the park base increases on the performance of the entire NPS, it is estimated that \$7.775 million of the total amount requested is the amount to be applied to the Facility Operations and Maintenance budget subactivity. This funding increase would support NPS work in support of DOI's Resource Protection goals to Improve the Health of Watersheds, Landscapes, and Marine Resources (DOI goal 1.1), to Sustain Biological Communities (DOI goal 1.2), and to Protect Cultural and Natural Heritage Resources (DOI goal 1.3), the Recreation goals to Improve Access to Appropriate Recreation Opportunities (DOI goal 3.1), to Ensure a Quality Experience and Enjoyment of Natural and Cultural Resources (DOI goal 3.2), and the Serving Communities goal to Protect Lives, Resources and Property (DOI goal 4.1). For example, funding would support such activities as improving winter road maintenance and establishing comprehensive preservation maintenance programs to prevent deterioration of historic buildings at Lincoln Home National Historic Site, Fort Donelson National Battlefield, and Gateway National Recreation Area. For a more comprehensive examination of the park increases contained within this proposal, please refer to the Analysis of Park Increases in the Summaries section of this budget document.

Repair and Rehabilitation Projects: +\$6.315 million

Within the Operation of the National Park System appropriation, the NPS is proposing an increase of \$6.315 million in FY 2004 for the Regional Repair and Rehabilitation Projects. This increase would provide additional funding to be used toward reducing the backlog of park facility repair/rehab projects with the ultimate goal of eliminating the backlog. Projects funded with this increase would result in improved visitor experience through upgrade and repair of visitor facilities, e.g. roads, water and wastewater systems, and utilities. The funding will focus on increased maintenance of park facilities and address the highest priority visitor and employee health and safety, resource protection, and accessibility needs for parks. This increase would bring the requested Repair/Rehabilitation project funding for FY 2004 to \$80.174 million. This ongoing work supports the Presidents desire to eliminate the NPS maintenance backlog. It also supports the DOI Recreation goal for Ensuring a Quality Experience and Enjoyment of Natural and Cultural Resources (DOI goal 3.2) by having facilities in fair or better condition and the DOI Serving Communities goal for Protecting Lives, Resources and Property (DOI goal 4.1) to Improve Public Safety and Security by having facilities, including roads, in fair or better condition.

Condition Assessments: +\$2.606 million

The NPS is proposing an increase of \$2.606 million in FY 2004 for the servicewide Asset Management Program, bringing the annual funding up to \$13.9 million. This increase will be used for the development of the life cycle maintenance practices, while accomplishing additional comprehensive condition assessments. This is the implementation of business practices for facility life cycle maintenance in order to maximize the life of NPS assets. It is a structured program of preventive/cyclic maintenance and component renewal initiated within the NPS for newly constructed as well as existing facilities. It will maximize the life cycle for its capital asset portfolio and with the aim to prevent the reoccurrence of another large deferred maintenance backlog. It is a critical component in the management reform process for the Facility Management Program. The implementation of the life cycle process will lead to:

- Lower Maintenance Costs
- Lower Repair Costs
- Decreases in Unplanned Downtime
- Reduced Capital Expenses
- Increased Equipment reliability
- Maintaining Operating Efficiencies
- Controlled Asset Management and
- Increased Asset Life

Condition assessments will allow the NPS to quantify the backlog and monitor progress on reducing the NPS maintenance backlog. It will also provide managers a means to detect potential problems and prevent further facility deterioration.

The data collected through condition assessments allows the NPS to develop Facility Condition Indices (FCI) that quantify the condition of a structure by dividing the deferred maintenance backlog of a facility by the current replacement value of the same facility. This performance measure allows Park managers to determine when it is more cost effective to replace, rather than repair, a structure; and to objectively evaluate the condition of a facility.

The NPS is currently creating an estimated baseline FCI for park service facilities, based on a sample of structures that have condition data. The FCI baseline development will be complete by June 2003 and the NPS will be able to use this management tool to develop performance targets. In 2004, NPS will use these performance targets to help managers prioritize projects and evaluate the most cost-effective method of addressing a park's facility needs.

This work supports the DOI Recreation goal for Ensuring a Quality Experience and Enjoyment of Natural and Cultural Resources (DOI goal 3.2) by having facilities in fair or better condition and the DOI Serving

Communities goal for Protecting Lives, Resources and Property (DOI goal 4.1) to Improve Public Safety and Security by having facilities, including roads, in fair or better condition.

Facility Maintenance Software System: -\$0.721million

The NPS is proposing an decrease of \$0.721 million in FY 2004 for maintenance management software upgrades and program support. This reduction will bring FMSS funding levels to \$4.406 million; at this level, the NPS expects to complete the implementation of FMSS as proposed.

Regular Cyclic Maintenance Program: +\$9.0 million

The NPS is proposing an increase of \$9.0 million in FY 2004 for the Cyclic Maintenance Program, bringing the program to an annual level of \$55.887 million. An important corollary to the President's objective of eliminating the NPS backlog of deferred maintenance needs is to prevent additional facilities from being added to the list. Providing additional funds for Cyclic Maintenance would promote a sound preventative maintenance program to prolong the life of a resource or facility. Typical projects include road sealing, painting and roofing of buildings, clearing vegetation from trails, sign repair and replacement, landscaping, repair of dock and marine facilities, and upgrades of electrical and security systems. This work will allow the NPS to prevent additional facilities from deteriorating or becoming a deferred maintenance need. This work supports the DOI Recreation goal for Ensuring a Quality Experience and Enjoyment of Natural and Cultural Resources (DOI goal 3.2) by having facilities in fair or better condition and the DOI Serving Communities goal for Protecting Lives, Resources and Property (DOI goal 4.1) to Improve Public Safety and Security by having facilities, including roads, in fair or better condition.

Projects funded through Cyclic Maintenance will be tracked and accomplishments reported in FMSS and PMIS.

Information Technology Reduction: -\$0.768 million

The Department of the Interior is undertaking significant technology reforms to improve the management of IT investments and to realize short- and long-term efficiencies and savings. The reforms include consolidated purchases of hardware and software; consolidation of support functions including help desks, email support and web services; and coordination of training. The Park Management activity includes a reduction of \$0.768 million to reflect the effect of these management reforms on Facility Operations and Maintenance Programs.

Workload Tables: Facility Operations and Maintenance

Environmental Management Program Workload Factors

Annual Workload Factors	FY 2002 Actual	FY 2003 Estimate	FY 2004 Estimate
Number of fuel storage tanks sites upgraded, replaced or removed	47	50	50
Number of contaminated sites that have been investigated and or cleaned up	86	80	80
Number of parks that have been audited	102	100	100
Number of findings of noncompliance through environmental auditing	3,837	4,000	3,000
Number of actions taken to correct a finding of noncompliance	457	1,000	1,000

Dam Safety Program Workload Factors

Workload Factors	FY 2002 Actual	FY 2003 Estimate	FY 2004 Estimate
Number of dams inventoried affecting the National Park System	505 NPS 262 Non-NPS	527 NPS 264 Non-NPS	549 NPS 266 Non-NPS
Number of formal dam safety inspection reports prepared	31	31	31
Number of dams corrected to date	197	216	219
Number of dams deactivated to date	167	175	176

Physical Inventory of the NPS

- 7,580 administrative buildings
- 5,771 historic structures
- 4,389 housing units (including approximately 1,000 historic housing units)
- 8,500 miles of roads (including 5,456 miles of paved road)
- 1,804 bridges and tunnels
- 763 miles of paved trails
- 270 electrical generating systems
- 12,250 miles of unpaved trails
- 160,000 signs
- 483 water impoundment structures
- 493 water treatment plants
- 187 wastewater treatment plants and associated utility systems
- 200 solid waste operations
- 300 radio systems
- 8,505 monuments
- 26,830 campground sites



Mabry Mill at Blue Ridge Parkway